

The Importance of Spatial Context and Analytics in Transportation

Presented by **Kevin Bolger**
Esri



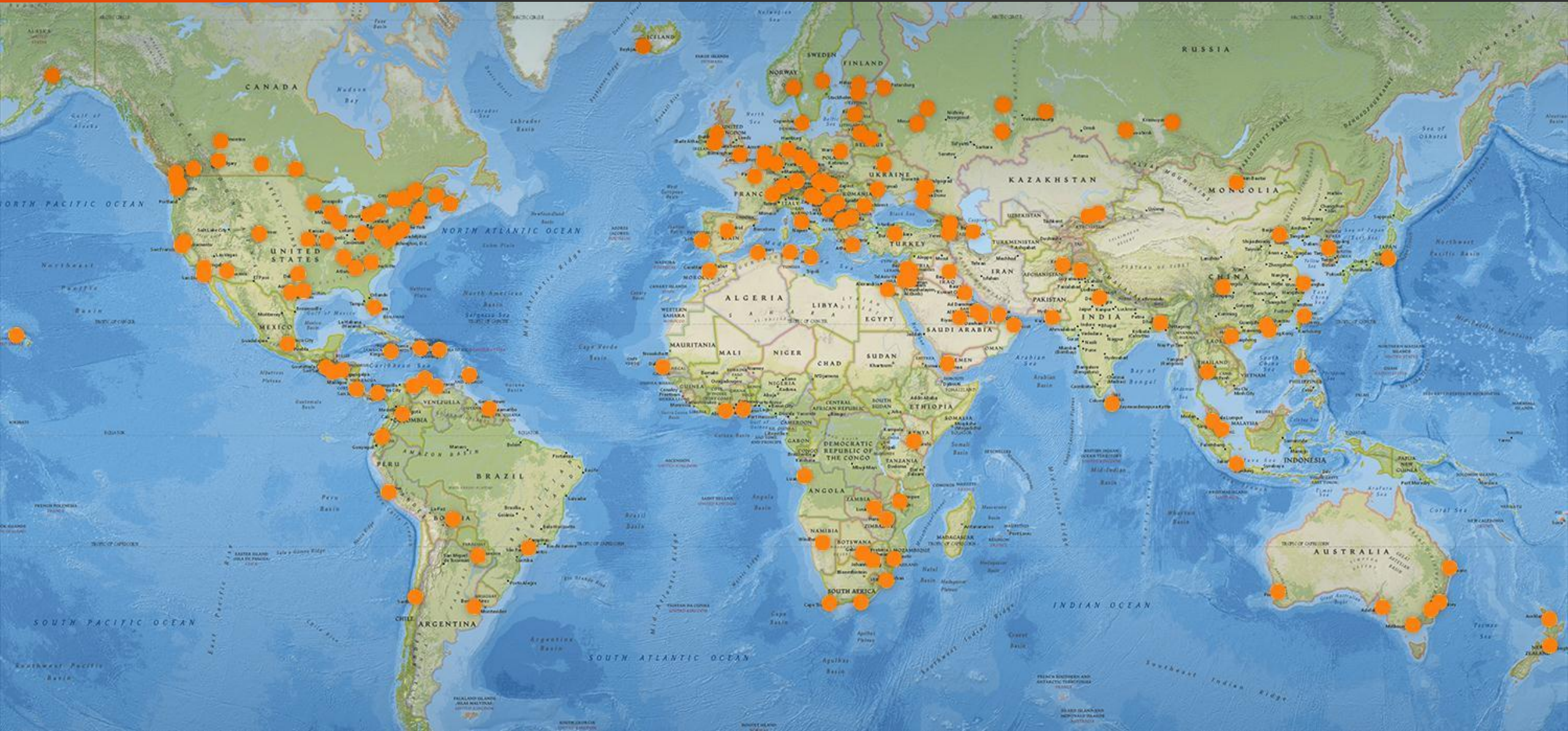
Esri

LOCATION ANALYTICS LEADER

Strong and Growing....
....Serving Our Users

A Global Company

130+ Countries



AGENDA

- **Key Benefits of Location**
- **Why Location Matters**
- **Short Demo**
- **Customer Experiences**
- **Open Q&A**

WHY

Location?



Location Data is Pervasive





big data
collections

Social media

Images &
video

spreadsheets

people

assets

customer
records

analytics

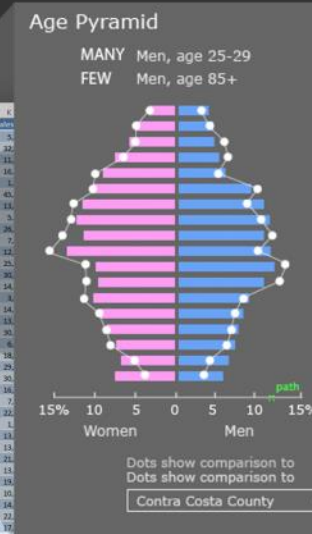
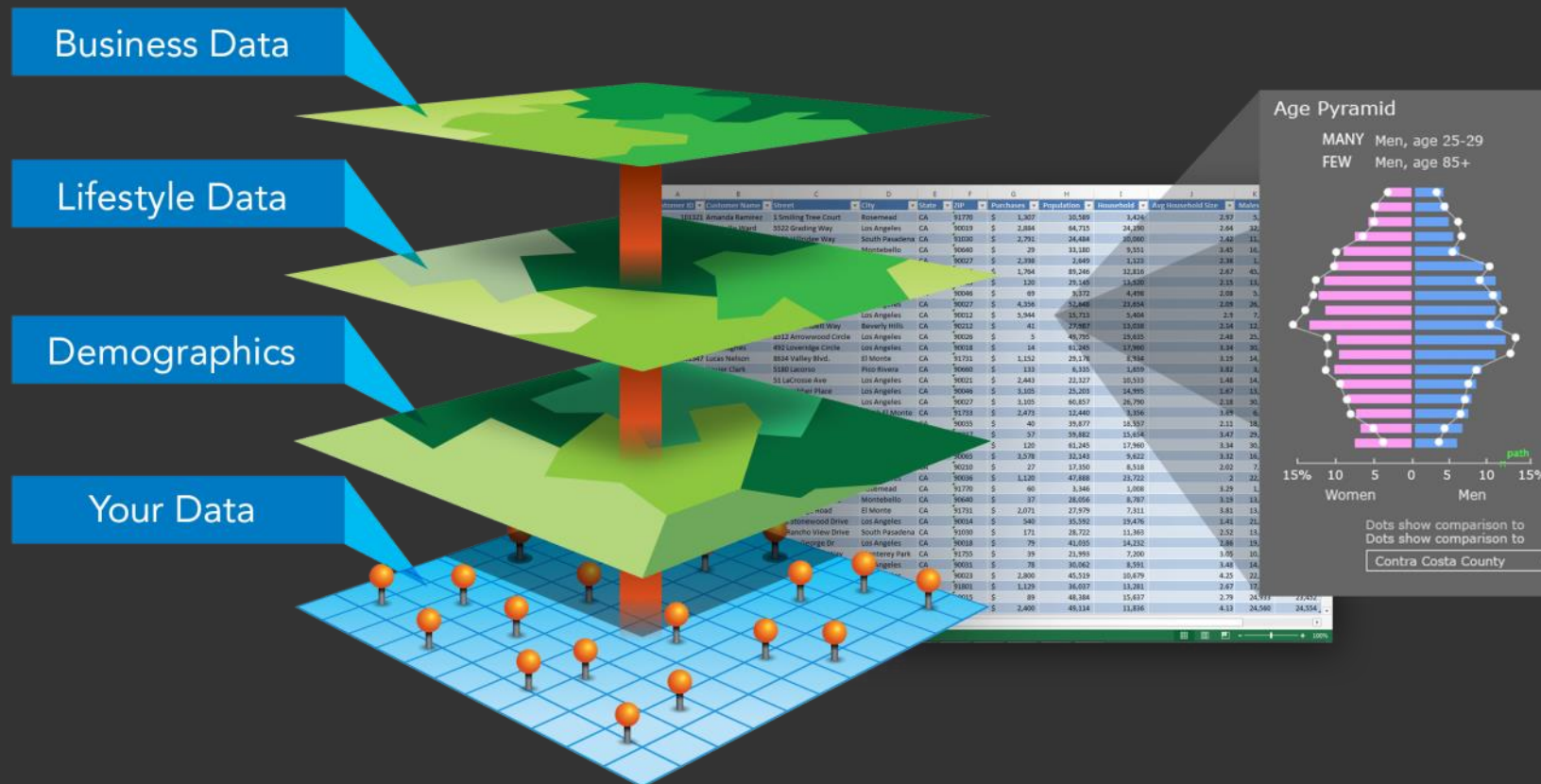
mobile
devices

Enrich Your Analysis

Your Data



Location



AAA Communications Inc.

Wireline – Selected Operating Statistics

Unaudited

Connections (000)

FTTH TV Subscribers

FTTH Internet Subscribers

FTTH Digital Voice residence

FTTH Digital connections

HSI and other

Total Broadband connections

Primary residence switched a

Primary residence connection

Total retail residence voice c

Total voice connections

Net Add Detail (000)

FTTH TV Subscribers

FTTH Internet Subscribers

FTTH Digital Voice residence

FTTH Digital connections

HSI and other

Total Broadband connections

Primary residence switched a

Primary residence connection

Total retail residence voice c

Total voice connections

Other Operating Statistics

Capital expenditures (\$M)

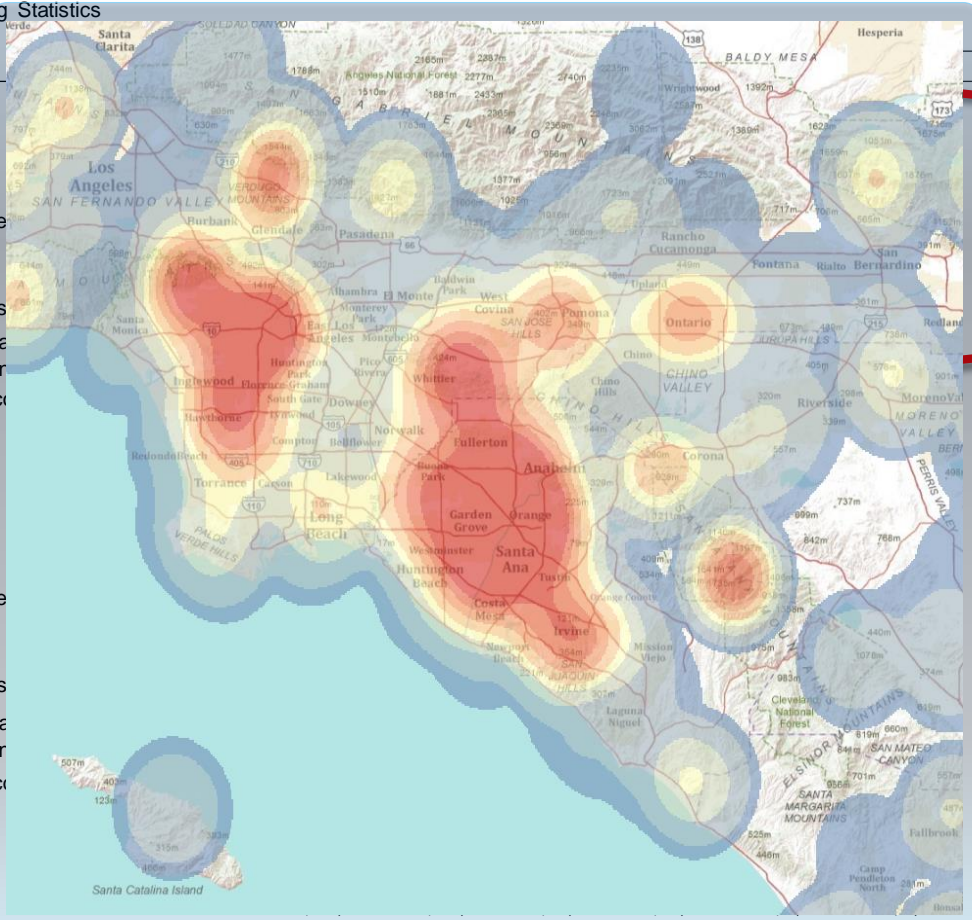
Wireline employees (K)

FTTH Internet Open for Sale (K)

FTTH Internet penetration

FTTH Video Open for Sale (K)

FTTH Video penetration



2011
4Q 1Q

3,472 3,664
4,082 4,289
817 977
8,371 8,930
4,310 4,201
8,392 8,490
11,757 11,359
12,574 12,336
13,616 13,327
26,001 25,454

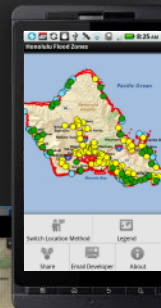
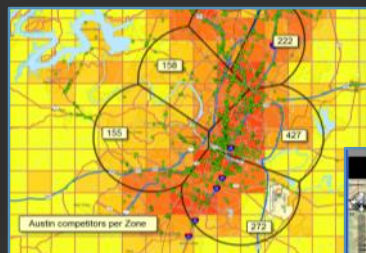
182 192
197 207
145 160
524 559
(144) (109)
52 98
(396) (398)
(251) (238)
(303) (289)
(543) (547)

\$2,171 \$ 1,465
92.3 92.0
12,786 12,962
32% 33%
12,388 12,585
28% 29%



Why Is Location So Compelling Now?

- Maps communicate
- Spatial analysis is powerful
- New technology is making location easier



-Better and Faster Decision Making
- ... Improved Communication
- ... Increased Efficiency



True for All Industries

Agriculture

Mining

Government

Manufacturing

Real Estate

Finance

Defense

Retail

Insurance

Utilities

Oil &
Gas

Forestry

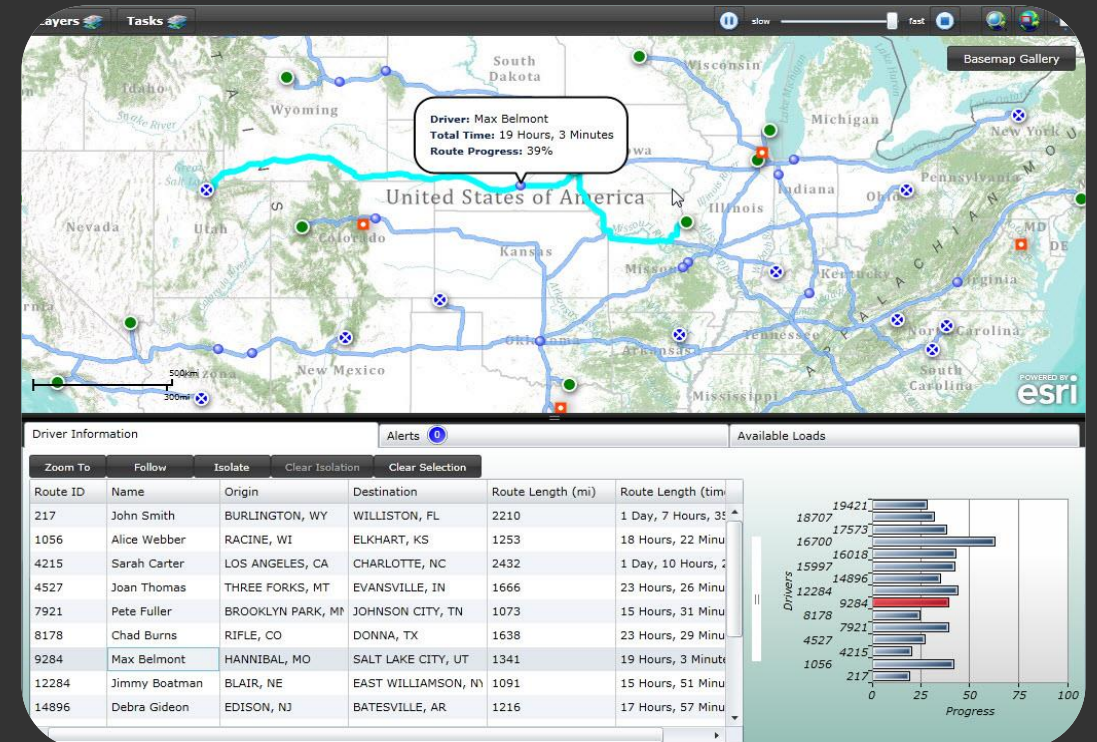
Public
Safety

Fleet Operations

Comprehensive, unified Spatial platform supports the Enterprise

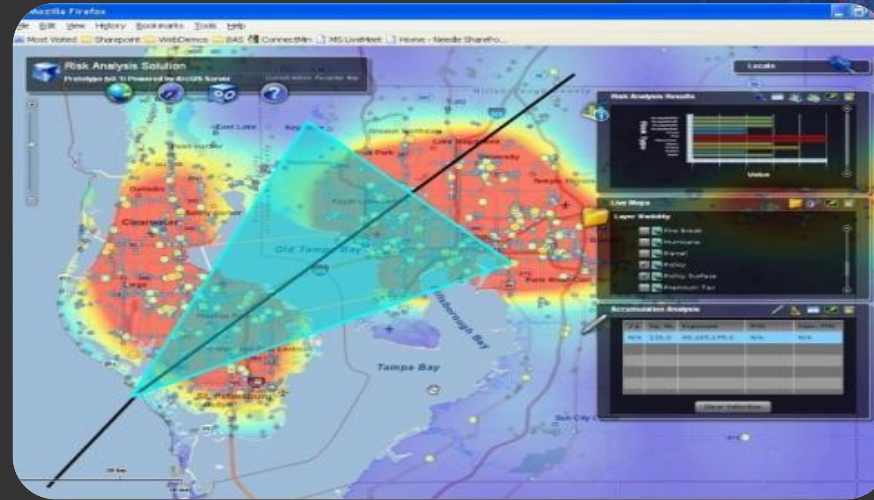


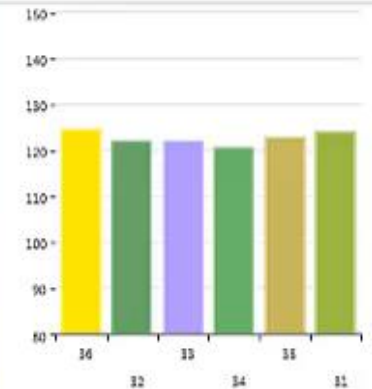
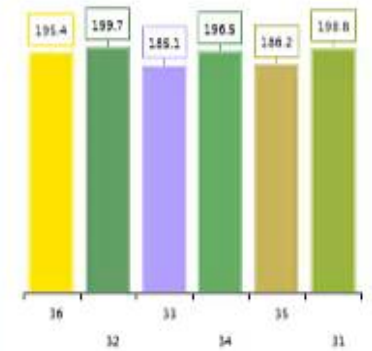
- Operational Awareness – Fleet Tracking
- P&D Route Planning
- Dynamic Dispatching
- In-Cab Navigation



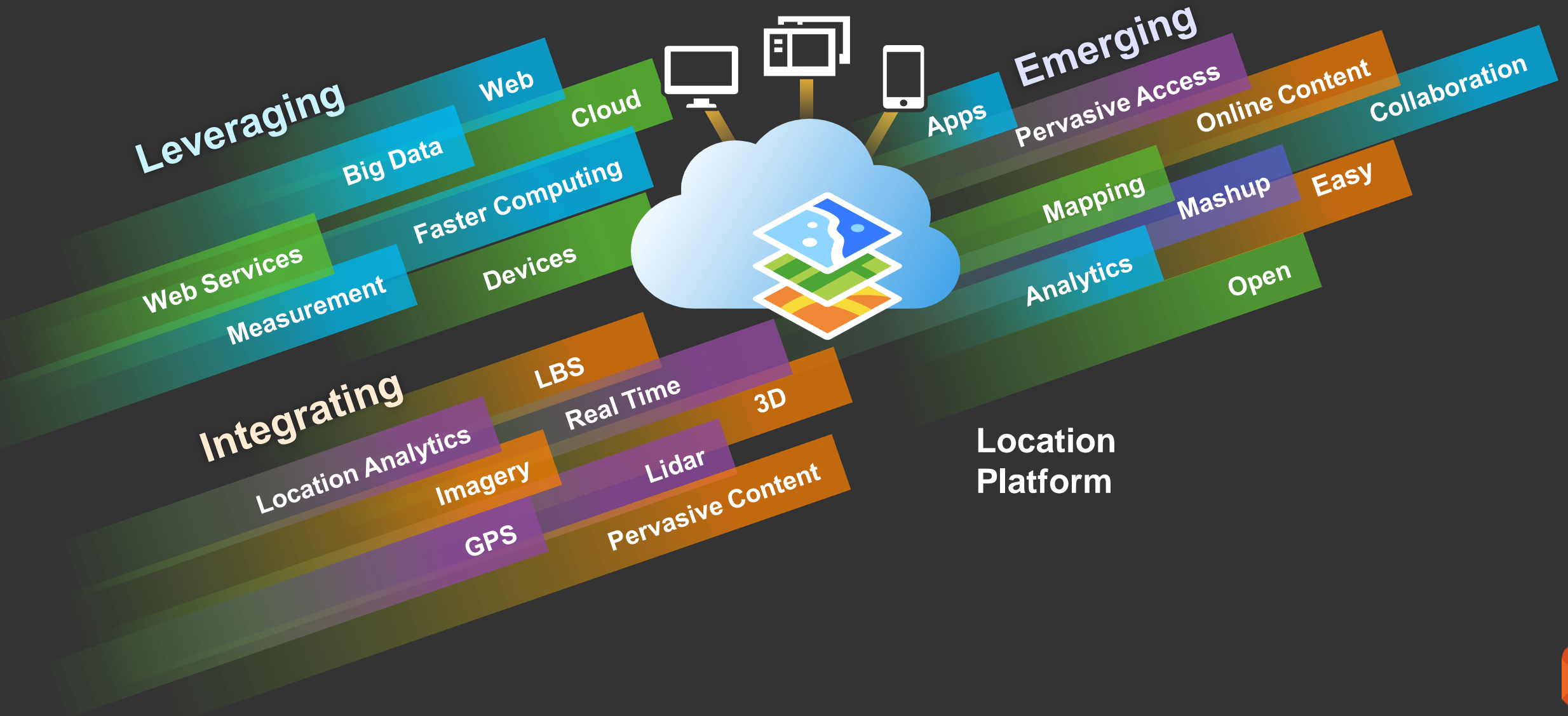
Value added Analytics

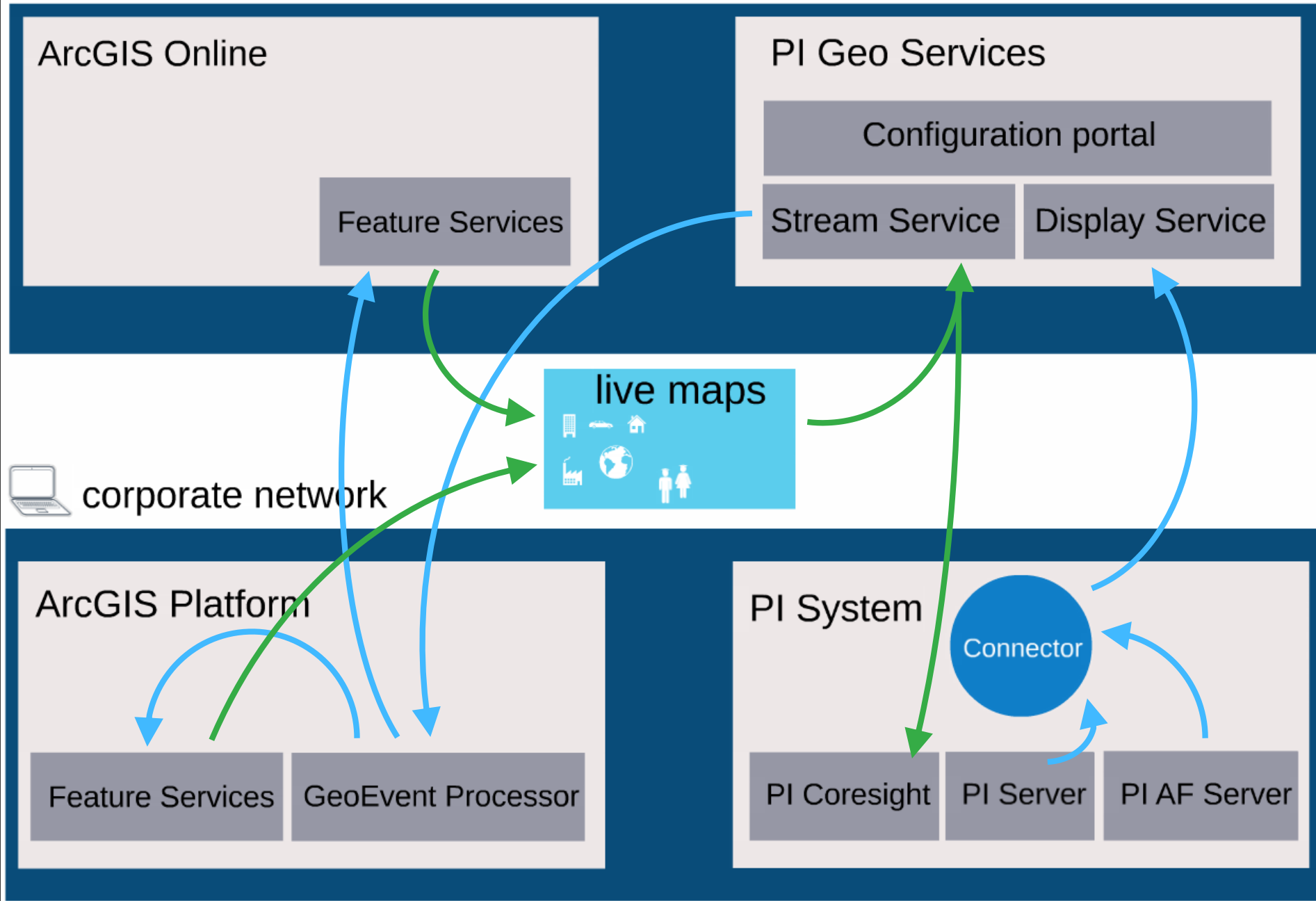
- Risk Analysis
- Situational Awareness
- Mitigation



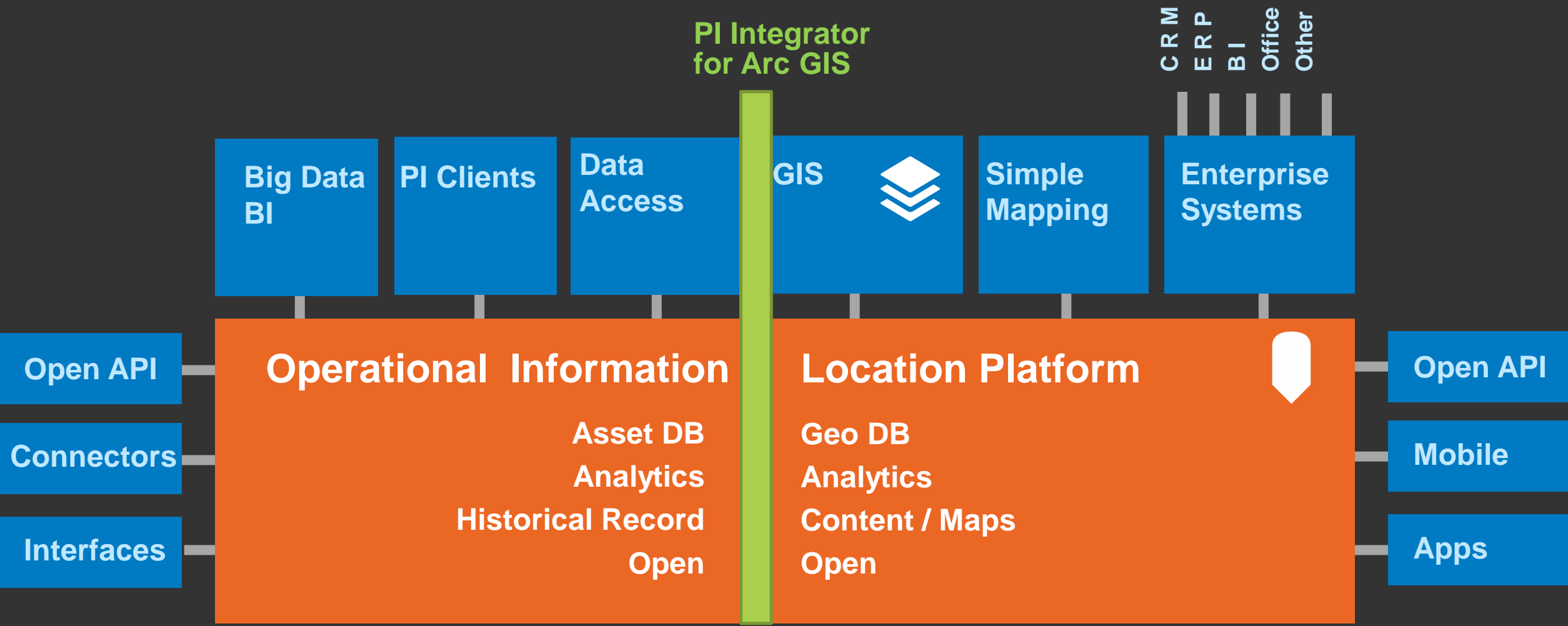


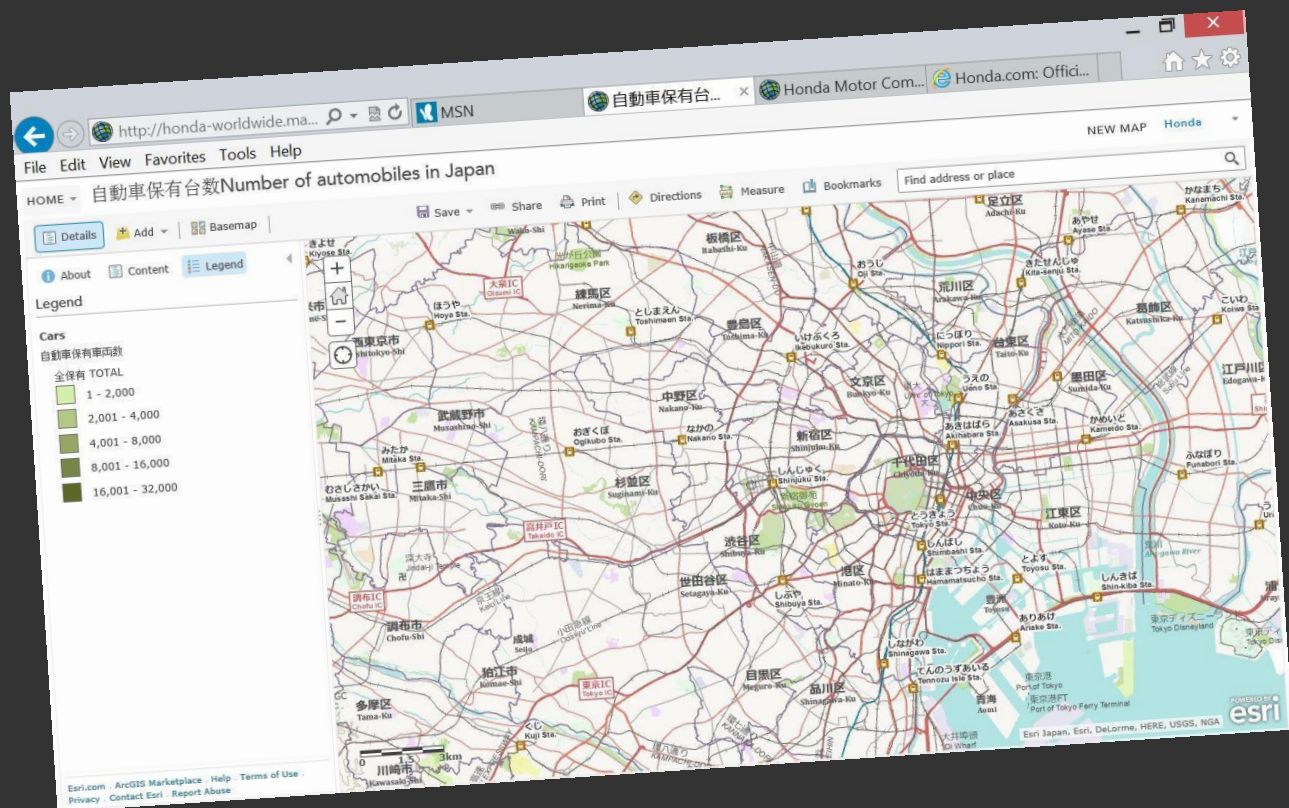
Location as a Platform





PI/Esri Interoperability





Freedom | to use the device at hand

Gallery

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ArcGIS for Automotive Featured Content

Sort By: Most Recent

Show

All

Maps

Layers

Apps

Search the website or visit the
ArcGIS Marketplace



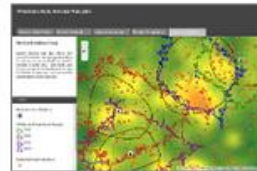
Precision Auto Cable Marketing



Cognos Sales Dashboard



Operational Awareness Viewer



Precision Auto Service Analysis



Locations of Fuel Injector Warranty Claims



Japan Earthquakes and News



Precision Auto New Car Sales



Global Supply Chain Network App



Tokyo Earthquake and Tsunami Risk



Precision Auto Dealer Score



Global Incident Viewer



Average Household Size in Japan

Content Management | for organizing your users, groups, maps, and applications

Export Meldingen MV SAP - KAD STG VAV GLO.xls [Compatibility Mode] - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View Add-Ins Esri Maps Team

Insert Map Map Contents Add Excel Search Data Basemap Remove Layer Select Style Grouping Clustering Add Heatmap Visible Range Layer Details Enrich Layer Sign Out Share Layer Share Map Create Slide Copy Image Help

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1	Functieplaats	Gebruikerstatus	Gecreëerd door	Gecreëerd om	Gecreëerd op	Gemeld door	Gewenst begin	GewEindtjdstip	Gew.begintijd	Gewenst einde	Gewijzigd door	Gewijzigd op	InstToestNaMaat	InstToestNaStor
2	H-L-N-MV-047-STG	GECO	KROONG	12:20:32	02/01/2012	KROONG	12/01/2012	00:00:00	12:14:51		LANGELV	02/01/2012		
3	H-L-N-MV-180-GLO	GECO	KROONG	10:00:23	12/01/2012	KROONG	12/01/2012	09:55:50	09:55:50		KRUUFN	17/07/2012		
4	H-L-N-MV-171-KAD-001	GECO												
5	H-L-N-MV-010-KAD-010-088-TRP	GECO												
6	H-L-N-MV-180-KAD-007-144-FDR-A00-FF	GECO												
7	H-L-N-MV-010-KAD-010-038	GECO												
8	H-L-N-MV-047-KAD-005-036-TRP-036	GECO												
9	H-L-N-MV-037-KAD-001	GECO												
10	H-L-N-MV-037-KAD-002-164-AFM-003-A01	GECO												
11	H-L-N-MV-037-KAD-002-165-AFM-000	GECO												
12	H-L-N-MV-037-KAD-002-167-AFM	GECO												
13	H-L-N-MV-037-KAD-002-168-AFM	GECO												
14	H-L-N-MV-037-KAD-002-169-AFM-003-A01	GECO												
15	H-L-N-MV-037-KAD-002-170-AFM-000	GECO												
16	H-L-N-MV-037-KAD-002-171-AFM-003-A01	GECO												
17	H-L-N-MV-037-KAD-002-172-AFM-000	GECO												
18	H-L-N-MV-037-KAD-002-173-AFM-000	GECO												
19	H-L-N-MV-037-KAD-002-173-AFM-000	GECO												
20	H-L-N-MV-037-KAD-002-174-AFM-000	GECO												
21	H-L-N-MV-037-KAD-002-175-AFM-000	GECO												
22	H-L-N-MV-037-KAD-002-176-AFM-000	GECO												
23	H-L-N-MV-037-KAD-002-177-AFM-000	GECO												
24	H-L-N-MV-037-KAD-002-178-AFM-000	GECO												
25	H-L-N-MV-037-KAD-002-179-AFM-000	GECO												
26	H-L-N-MV-037-KAD-002-180-AFM-000	GECO												
27	H-L-N-MV-037-KAD-002-181-AFM-000	GECO												
28	H-L-N-MV-037-KAD-002-182-AFM-000	GECO	KROONG	11:36:19	24/01/2012	KRO								
29	H-L-N-MV-037-KAD-002-183-AFM-000	GECO	KROONG	11:37:01	24/01/2012	KRO								
30	H-L-N-MV-037-KAD-002-184-AFM-000	GECO	KROONG	11:38:14	24/01/2012	KRO								
31	H-L-N-MV-037-KAD-002-185-AFM-000	GECO	KROONG	11:39:10	24/01/2012	KRO								
32	H-L-N-MV-037-KAD-002-186-AFM-000	GECO	KROONG	11:40:08	24/01/2012	KRO								
33	H-L-N-MV-037-KAD-002-187-AFM-000	GECO	KROONG	11:41:01	24/01/2012	KRO								
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35	H-L-N-MV-037-KAD-002-189-AFM-000	GECO	KROONG	11:42:59	24/01/2012	KRO								
36	H-L-N-MV-037-KAD-002-190-AFM-000	GECO	KROONG	11:45:09	24/01/2012	KRO								
37	H-L-N-MV-037-KAD-002-191-AFM-000	GECO	KROONG	11:45:54	24/01/2012	KRO								
38	H-L-N-MV-037-KAD-002-192-AFM-000	GECO	KROONG	11:46:34	24/01/2012	KRO								
39	H-L-N-MV-037-KAD-002-193-AFM-000	GECO	KROONG	11:47:21	24/01/2012	KROONG	24/01/2012	11:46:44	11:46:44		23/04/2012	KRUUFN	03/05/2012	
40	H-L-N-MV-037-KAD-002-194-AFM-000	GECO	KROONG	11:48:11	24/01/2012	KROONG	24/01/2012	11:47:33	11:47:33		23/04/2012	KRUUFN	03/05/2012	

Share Map on ArcGIS Online

Share Map

Enter the map details to be shared on ArcGIS Online.

Title: Meldingen uit SAP

Tags: Meldingen, SAP, KAD, STG, VAV, GLO

Description:

Share with: ☐ Everyone (Public) ☒ Organization (Port Of Rotterdam) ☒ These groups:

- ☐ PoR Data Validation
- ☒ Asset Management (AM)
- ☐ Port Development (PD)
- ☐ Procesindustrie & Massagoed (PIM)

Next

Map Contents Search Fix Locations

Excel Layer

Locations found. 409 Successful; 24 errors. Fix errors

1 of 1

Apparat.geg. H-L-N-MV-171-KAD-001-025-TRP-025-ST1

Functieplaats GECO

Gebruikerstatus KROONG

Gecreëerd door 08:46:22

Gecreëerd om 26/03/2012

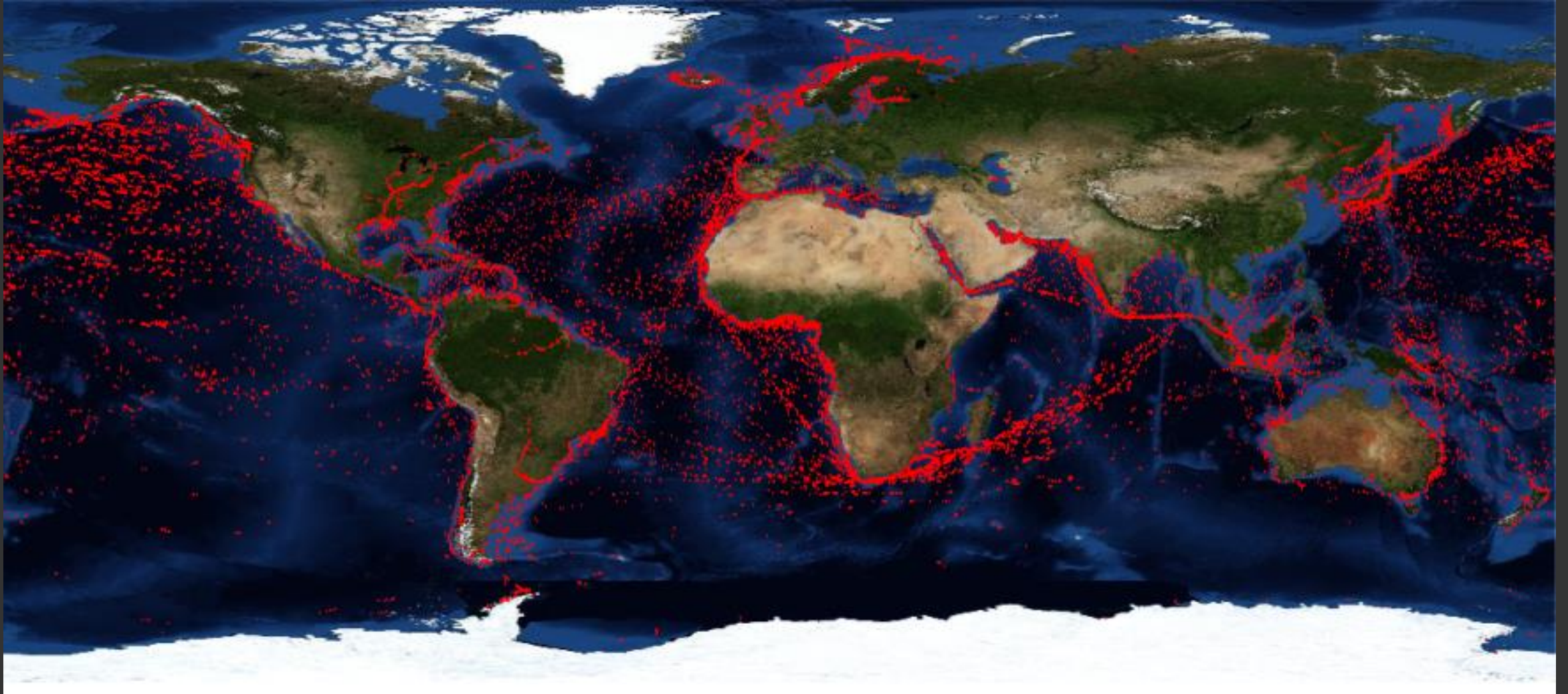
Gemeld door KROONG

Gewenst begin 26/03/2012

Infographics Select Row

Esri Maps for MSOffice | add-in for Excel and PowerPoint – make maps as easy as charts

Ship tracking



SIIG - Sistema de Identificação e Informação Geográfica
Módulo de Planeamento Portuário

Mapa: Mapa de Sines, Portugal, mostrando a costa e as instalações portuárias. Vários navios estão identificados e rastreados no porto.

Legenda:

- Navios
- Navio
- Tanque
- AIS Desligado
- Carga Perigosa
- Carga Perigosa | AIS Desligado
- Carga
- AIS Desligado
- Carga Perigosa
- Carga Perigosa | AIS Desligado
- Auxiliar
- AIS Desligado
- Carga Perigosa
- Carga Perigosa | AIS Desligado
- Outro
- AIS Desligado
- Carga Perigosa
- Carga Perigosa | AIS Desligado

Detalhes do Navio (M/T MALMO):

- Nome do Navio: M/T MALMO
- MMSI: 249357000
- Nº IMO: 9373242
- Tipo de Navio: N/T Produt. Químicos
- Carga Perigosa: 1
- Destino: SINES
- Velocidade: 0.4
- ETA: 20/09/2012 00:00
- CFF x Boca: 149.950000000000002
- Última Atualização: 23/09/2011 15:15

Gestor Eventos:

Nome	Data	Nome	Ação

Gestor Planeamento:

Data / Hora	Descrição
28/09/2011	teste

Mapa Portuário:

Mapa de Sines, Portugal, mostrando a costa e as instalações portuárias. Vários navios estão identificados e rastreados no porto.

Exportar para PDF **Exportar para Excel**



Real Time Berth View

PORTAL SIIG
MÓDULO DE PLANEAMENTO PORTUÁRIO

Pesquisa por Carga em Navio
Foi encontrado 1 registo

Navio
MMSI: 249848000

Limpar Zoom Exportar

Navio

MMSI	249848000
Tipo de Carga	PETRÓLEO BRUTO
Nome	PATROCLUS
IMO	9413834

EMMY SCHULTE

PATROCLUS

bing™

200 m

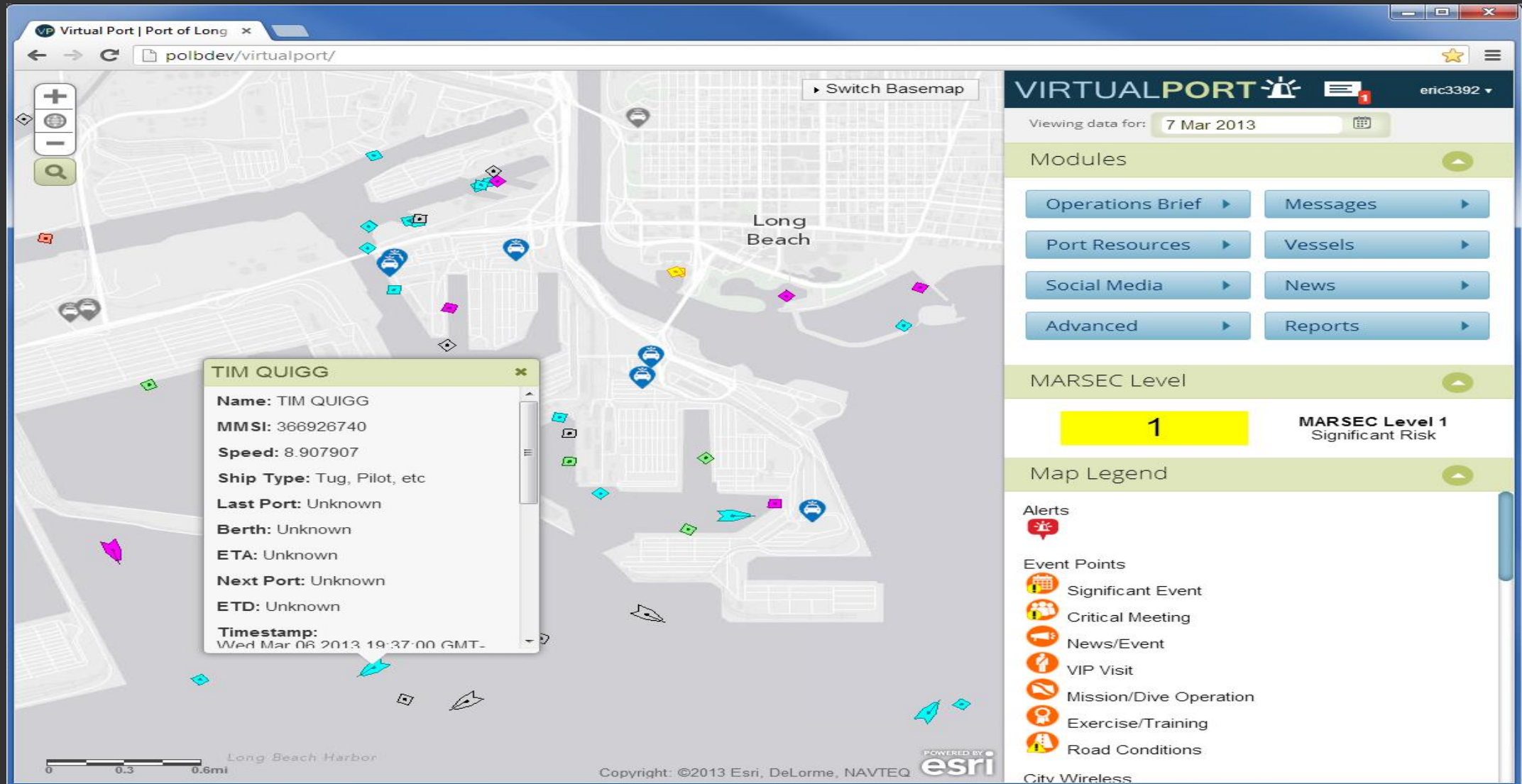
MAPA PORTO

Escola 1: 4,514 Latitude: 37.9480 Longitude: -8.8886

POWERED BY **esri**

Exportar para PDF Exportar para Excel

Common Operating Picture



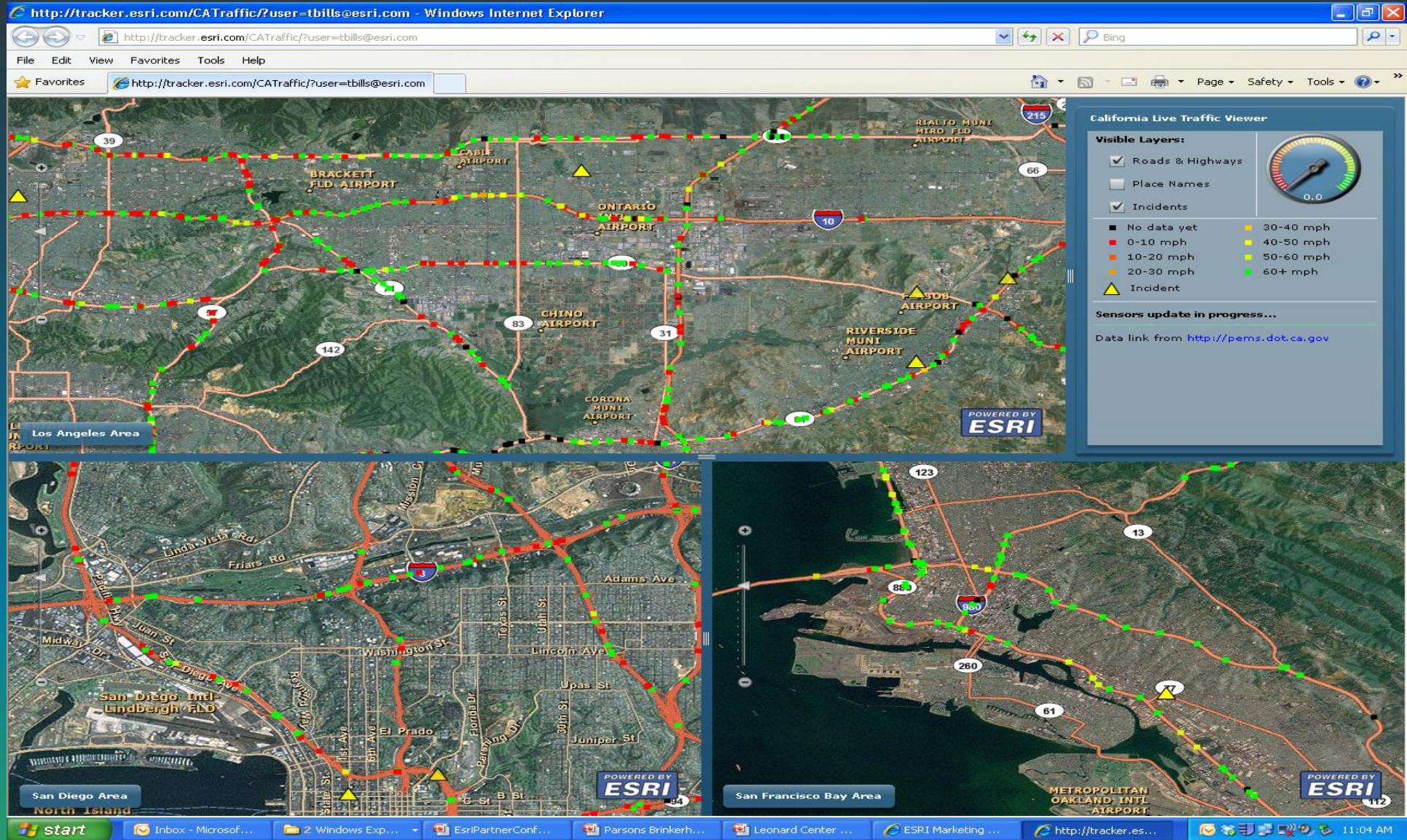
Large Volumes of Data



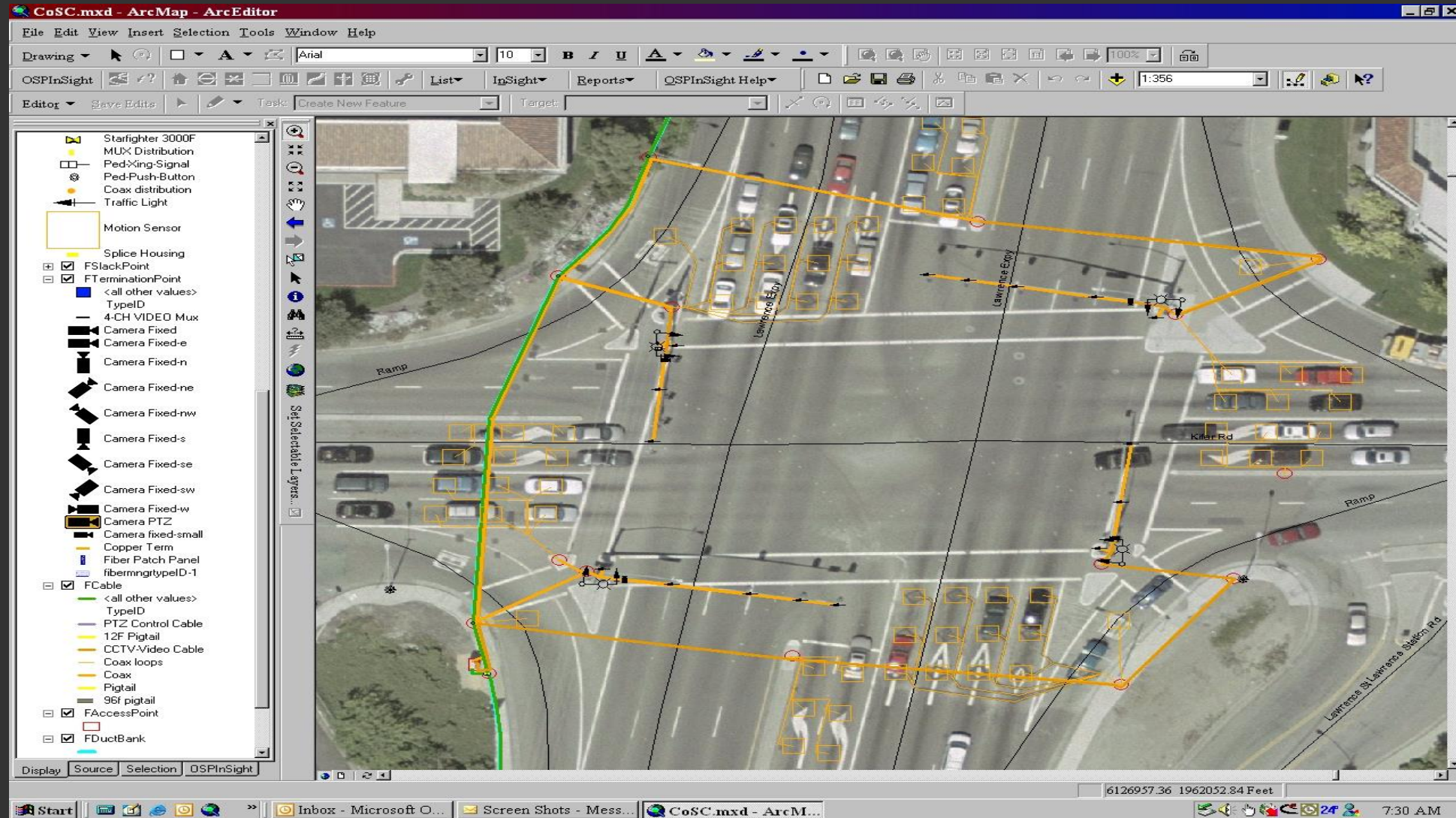
Source: IBM



Live Traffic in California



ITS and Traffic Control Systems



Connected Vehicle

- Customer Engagement
- Safety & Security
- Convenience

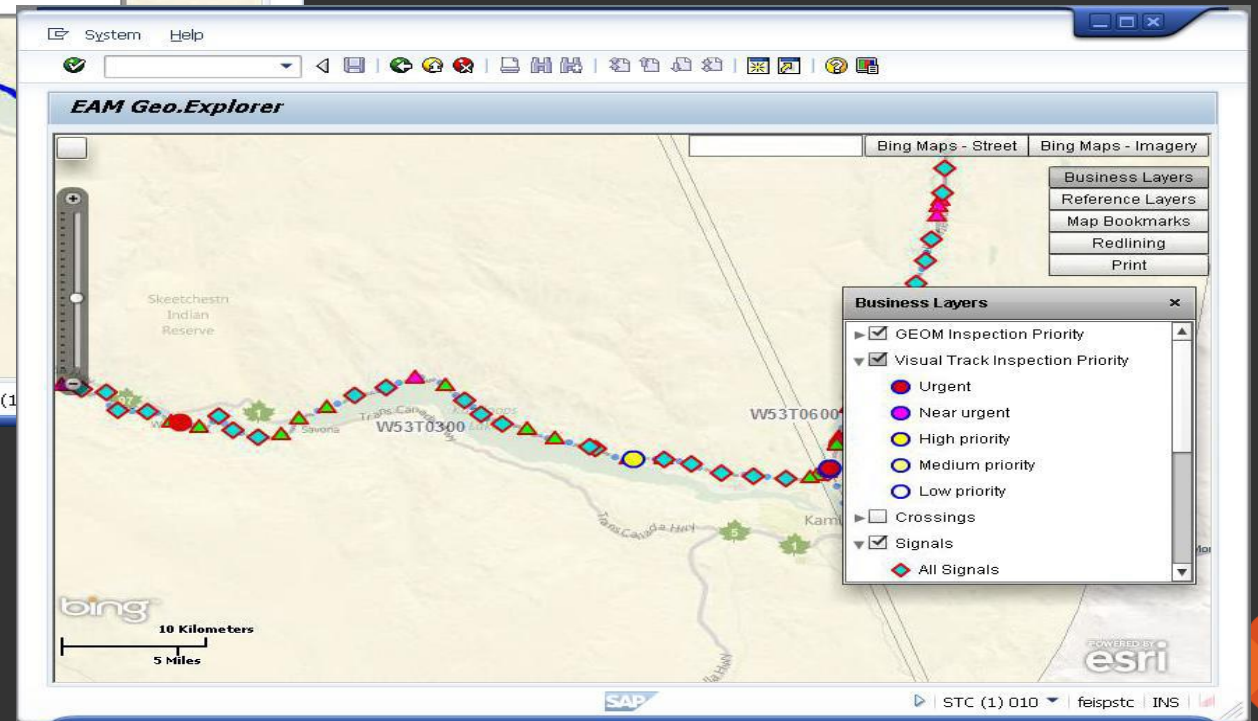
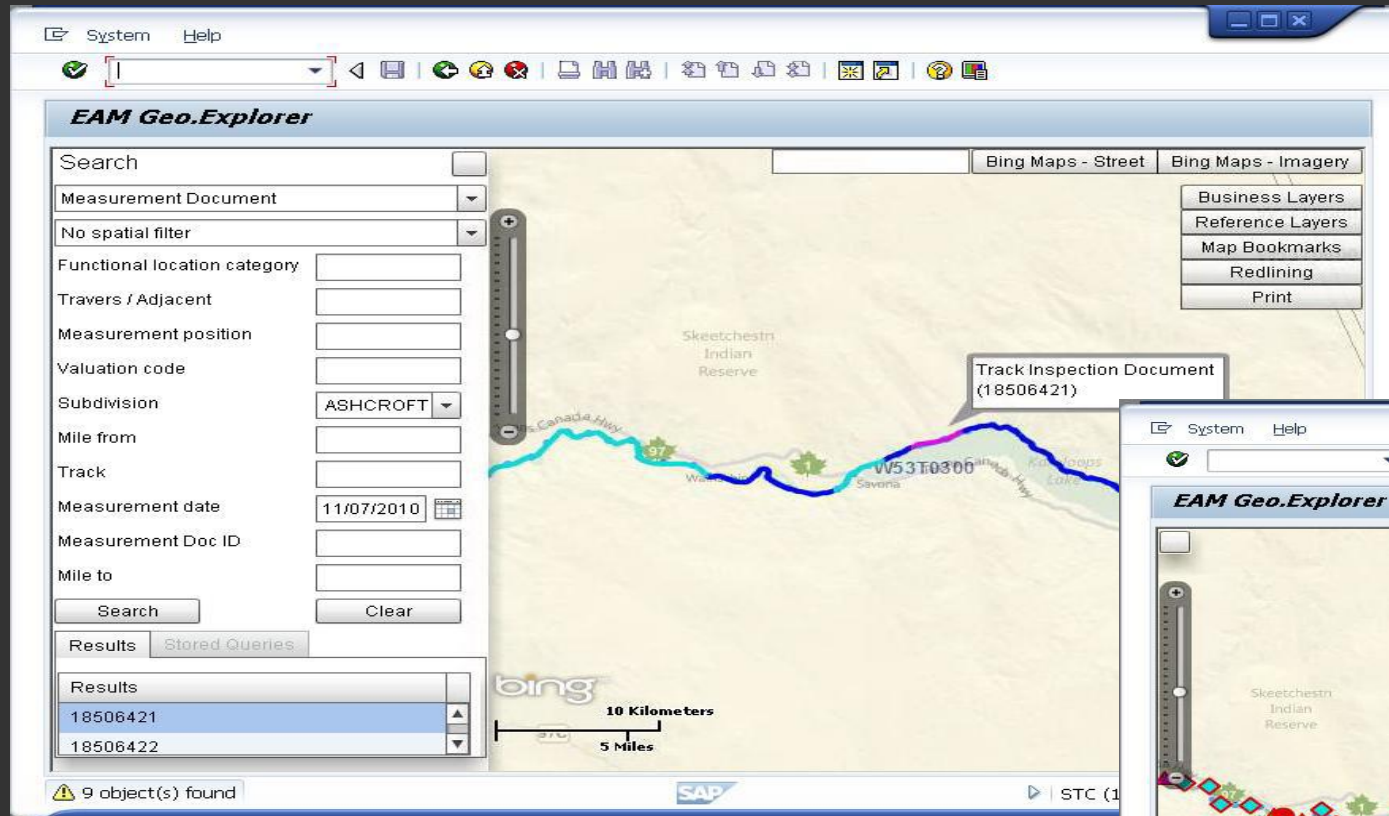


**Wishing to deliver what's useful to people,
convenient and fun to use.**

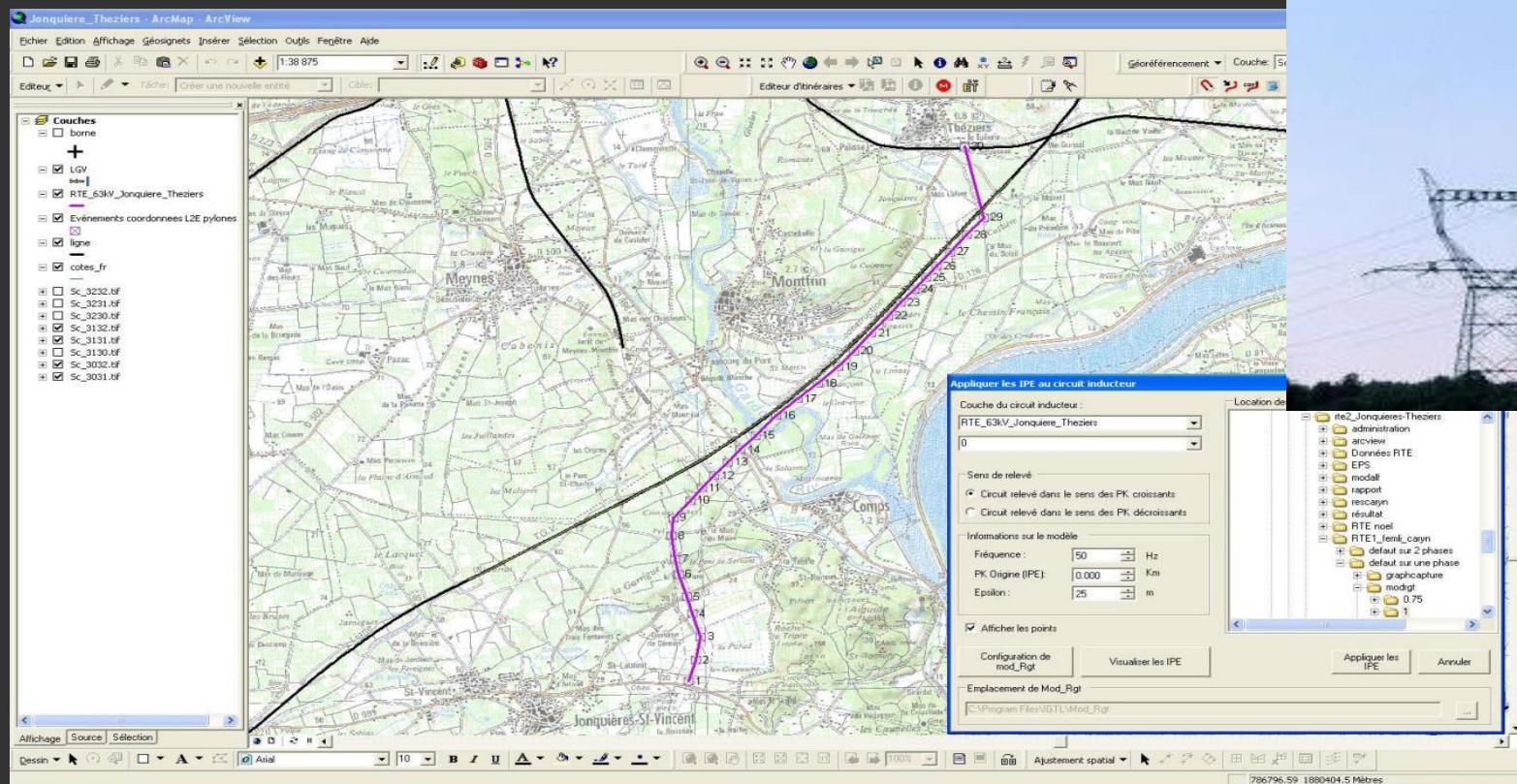
The 30 years of Internavi encapsulates such thoughts.



Real Time Track and Asset Monitoring



Electric Network Infrastructure



Timetable Tracking: Finnish Railroads

Live train map - VR - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Live train map - VR

www.vr.fi/en/index/aikataulut/liikennetilanne/livetrainmap.html

Google

Timetables from the Online Shop

Timetables for each station

Print timetables

Night and car-carrier train timetables

Connections and TrainBuses

Route Maps

Rail services status

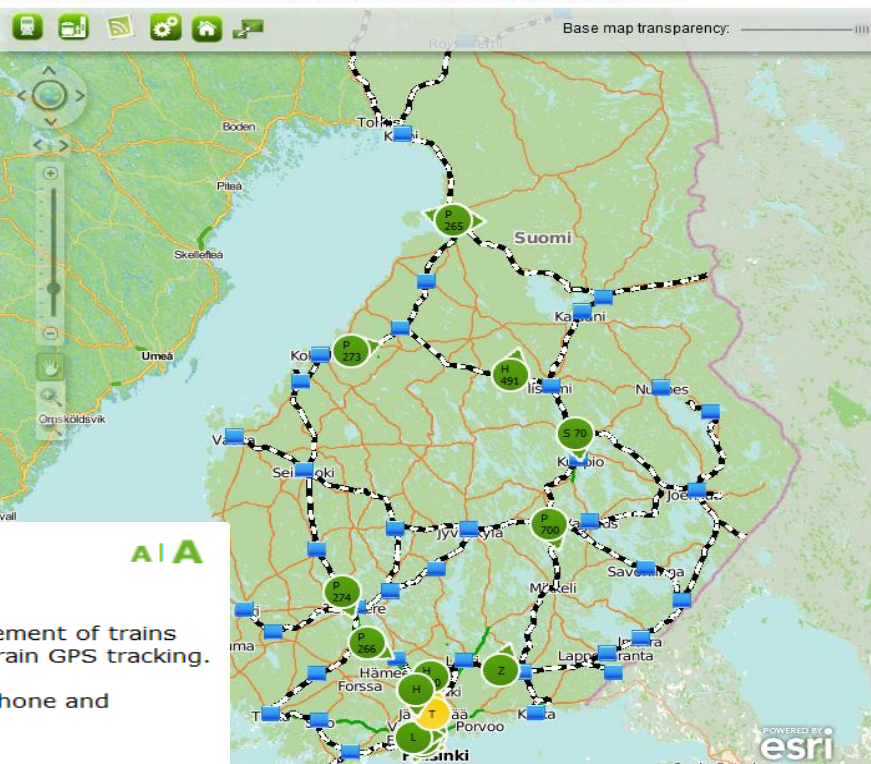
- Live train updates
- Traffic bulletins
- Live train map
- RSS feeds
- Track work
- Exceptions in holiday services

Live train map

Like 3 likes. Sign Up to see what your friends like.

With the Live train map you can track the movement of trains. The information is based on train GPS tracking. The application is a beta version. Read the [service instructions](#). The mobile version of the service is being developed and will be launched at a later date.

Base map transparency: 100%



Powered by esri

oying without permission of Logica Finland Oy is prohibited.

VR mobile services

Live train map



With the Live train map you can track the movement of trains with your smart phone. The data is based on train GPS tracking.

Download the free of charge service for your iPhone and Windows Phone 7 devices.

[Live train map for smart phones »](#)



Real Time Train and Work Crew Location



“Having a real time map-based view of our network will allow us to increase the amount of traffic we can schedule on a particular section of track while simultaneously reducing the possibility of human error. It’s hard to put a dollar value on increased safety, but there is no question that just avoiding one single serious accident would be a major benefit.”

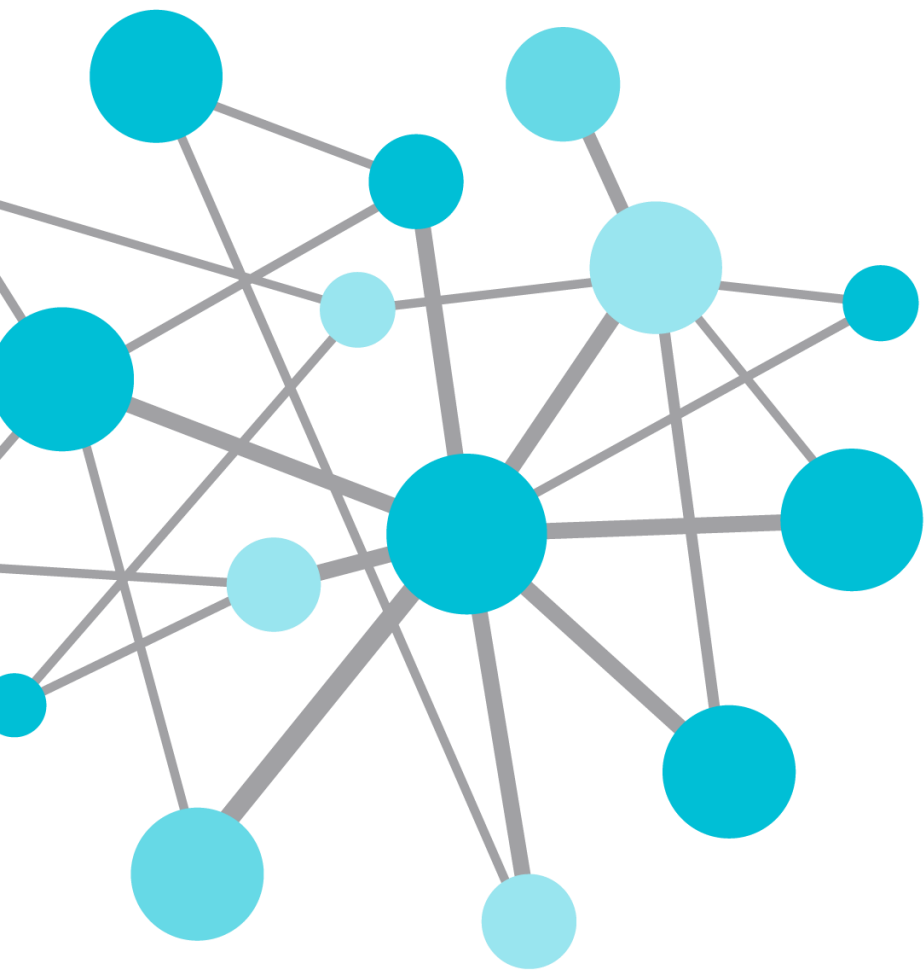
Trevor Pollack, Radio Engineer at OnTrack





Q&A

Thank you



THANK
YOU

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